

STORMWATER MANAGEMENT

Service Description

Eugene experiences an average annual rainfall of 46 inches a year. The City manages a system of both built and natural drainage ways that control stormwater flows and prevent flooding. The municipal stormwater system is not connected to the regional Water Pollution Control Facility (wastewater treatment plant). All stormwater runoff ultimately discharges to local natural systems including streams, rivers, ponds and wetlands. The primary receiving waters in Eugene are the Willamette River and the Amazon Creek drainage system. For several decades, the municipal stormwater system and the series of upstream dams on the Willamette and McKenzie River have effectively prevented periodic flooding in Eugene.

Eugene's stormwater system has grown to include approximately 39 miles of City-maintained primary and secondary open drainage facilities (waterways), more than 38 miles of roadside ditches and culverts, 518 miles of enclosed stormwater pipe, 13,500 catch basins, 2,500 pipe inlet/outlet structures, 7,250 manholes, and 3,000 acres of wetland owned and managed in partnership.

Maintenance work includes planned cleaning, inspection, repair, installation, and operation of the major open waterways, pipe, catch basins, and manholes. Work on the major open waterways involves vegetation control, bank stabilization, and debris and sediment removal. The street sweeping and leaf recycling programs are also part of the stormwater maintenance program.

The City's West Eugene Wetland program is an integral part of the City's stormwater system, and is a national model for balancing conservation and development in an urban setting. The City partners with the Bureau of Land Management, The Nature Conservancy, the US Army Corps of Engineers, and others to restore and manage wetlands in the community.

In addition to drainage system operation and maintenance, services include: the protection, enhancement, and restoration of stormwater-related natural resources, including wetlands; public education; volunteer coordination; erosion prevention and construction site management; implementation of drainage design and water quality standards; stormwater basin master planning; discharge compliance enforcement; and the administration of the City's compliance with state and federal stormwater permits.

Historic Perspective

- 1950s Amazon Channel constructed as part of the Army Corps of Engineers Flood Control Project. Maintenance responsibilities transferred to the City, with oversight by the Corps.
- 1965 City adopts policy to separate storm and sanitary sewer systems.
- 1987 Large areas of wetland identified in West Eugene.
The Federal Clean Water Act is reauthorized. Congress mandates that communities larger than 100,000 population begin reducing the discharge of stormwater pollutants into the receiving waters of the United States.
- 1992 Eugene City Council and Lane County Board of Commissioners adopt the **West Eugene Wetland Plan**.
- 1993 City Council adopts **The Comprehensive Stormwater Management Plan**. This plan provided the policy foundation for integration of programs serving water quality needs, related natural resource protection, and enhanced drainage performance and capacity.
- 1994 New stormwater fee rate structure implemented to finance expanded program.
- 1994 City receives the National Pollution Discharge Elimination System (NPDES) Permit for stormwater.
- 1995 Development of Wetland Executive Team (WET) Partnership.
- 1997 Erosion Prevention and Construction Site Management Practices ordinance adopted.
- 2001 Upper Willamette Spring Chinook listed as a threatened species under the federal Endangered Species Act.
- 2001 **Public Services and Facilities Plan** adopted by Lane County and Springfield.
- 2003 Six of seven updated stormwater basin master plans completed.
- 2003 Multi-agency agreement signed to conduct metro waterways study.
- 2004 City and Lane County establish a cooperative agreement for stormwater services in the Eugene urban growth boundary.
- 2004 Stormwater program budget reduced by \$1.8 million.
- 2004 Eugene's NPDES stormwater permit reissued by Oregon DEQ for a five-year period.

Citizen Involvement

Ongoing efforts to involve citizens include community newsletters, Stormwater Connections, educational programs such as SPLASH, Stream Team and other volunteer activities. A Stormwater Department Advisory Committee of citizens was formed to advise the City about proposed stormwater quality standards. Presentations to stakeholder groups and an open house are planned before adoption of the standards. Public input was solicited on the City's new NPDES permit Stormwater Management Plan, including a public notice, display ad, direct mailings, and a web site. A fact sheet with opinion survey was sent, and open houses were held to gather public input on the Metro Waterways Study, a partnership project aimed at restoring local waterways.

Customer Input

Staff conducts a bi-annual survey to obtain feedback specifically about stormwater services. In addition, every year surveys are sent to Eugene households that have been impacted by construction. The survey assesses the effectiveness of communication with property owners and residents about particular stormwater capital infrastructure projects, and their satisfaction with project objectives. A customer comment form is included in the EWEB bill containing stormwater charges, and the City's web site contains multiple pages devoted to the topic of stormwater.

Mission

The mission of the Stormwater Management Service is to manage stormwater systems in a way that meets the needs of the community and promotes wise stewardship of the urban and natural environment. We accomplish this by providing drainage services and by protecting and enhancing water quality and related natural resources in a cost-effective and environmentally beneficial manner that complies with regulatory requirements.

Outcomes

- Improve stormwater quality.
- Minimize property loss due to flooding.
- Ensure adequate drainage of streets and urban improvements to allow their intended use.
- Preserve and enhance community stormwater related natural and wetland resources.

Operating Principles

- We are committed to providing an integrated management approach that balances the multiple objectives of clean water, flood control, adequate drainage and preservation of related natural resources.
- We believe one of the best ways to meet Eugene's stormwater and environment goals is to enhance community stewardship of related natural resources through citizen involvement, education, and positive working partnerships.
- We believe open communication with citizens and with each other is the best way to find creative and innovative solutions that protect and enhance Eugene's waterway systems.
- We strive to balance environmental concerns and growth issues to ensure a safe environment and a prosperous community.
- We provide efficient and cost-effective service.
- We strive to develop cooperative relationships with other agencies involved in water quality, wetland, and other stormwater-related activities.

Current Operating Environment

External Trends

Continued Uncertainty Around Regulatory Impacts: Federal and state agencies responsible for stormwater regulation continue to refine and expand requirements and expectations that the City must satisfy. Additionally, some requirements are influenced or driven by legal actions by third parties. Significant additional requirements have been imposed through the renewal of the City's NPDES permit. Regulations related to protection of groundwater are beginning to have significant implications on stormwater management approaches, though requirements are under interpretation and still being clarified. Additionally, more stringent requirements are anticipated related to control of specific pollutants through imposition of TMDLs, but the exact timing and nature of the requirements is uncertain at this time. The degree of change and uncertainty requires higher attention and involvement of City staff, greater analysis of local conditions related to regulation, and creates the potential for conflicting interpretations.

Increase in Partnerships Focused on Stormwater: In response to changing environmental regulations, government agencies have developed cooperative efforts to influence development, interpretation and implementation of regulatory requirements. Additional communities are being regulated under Phase 2 NPDES permits. Phase 1 NPDES permitted communities in Oregon have gone through renewal of their initial stormwater permits. UIC regulations affect many communities. TMDLs require response at a watershed level. Eugene and other stormwater management agencies participate in the Oregon Association of Clean Water Agencies (ACWA) to cooperatively address water quality and stormwater issues. The City of Eugene and Lane County are working together to complete RR/SC basin plans; cooperatively sharing over-lapping BMP implementation.

Increased Costs for Service Delivery: Externally driven costs to the service area have increased and continue to escalate, e.g. health care and retirement benefits, fuel, and materials. Maintenance and operations needs are increasing because of rising inventories, regulations, internal standards, and aging infrastructure. Capital projects costs are increasing due to increased costs for fuel, materials, public involvement and regulatory compliance. This can result in the costs for continuing services exceeding projected revenues, with a need for incremental rate adjustment to provide adequate revenue.

Internal Conditions

Urban Growth and Development

The City continues to expand its knowledge about the environmental impacts of development, and how to alleviate degradation of our community's natural areas. For instance, discharges to headwater streams can cause erosion to

some valuable open waterways. The City is proposing solutions, both operationally and through planning and regulation activities. Mixed-use development areas give the City an opportunity to plan for enhancement to stormwater quality. Stormwater rehabilitation projects throughout the city help staff mitigate adverse impacts to existing open waterways.

Increased Awareness and Involvement: The City organization continues to emphasize the community's expectation for a high level of public information and involvement. The current NPDES permit has required additional public outreach and involvement. Public awareness and activism around natural resource and water quality is increasing, resulting in additional opportunities to engage the public. Developers and residents are more aware of requirements and are increasingly incorporating green or sustainable development approaches. Staff is more knowledgeable and aware of regulations and sustainable practices.

Performance Measures

Core Processes

Protect the Public from Flood Damage

- Number of reported flooding incidents.
- Percent of stormwater system maintained each year.

Improve Water Quality

- Percent of construction sites in compliance with erosion prevention standards.

Maintain and Enhance Stormwater-Related Natural Resources

- Total acres of wetlands and other stormwater-related natural areas enhanced.
- Total acres of wetlands and stormwater related natural areas maintained.

Total System:

Effectiveness

- Satisfactory compliance with Federal Stormwater Discharge Permit (NPDES) requirements.
- Maintain the City's National Flood Insurance Rating Program (NFIP) community rating at a 7. Compare ratings with Albany, Corvallis, and Salem.

Efficiency

- Operating and capital cost per system mile.

Financial

- Cost per capita.

Customer Satisfaction

- Percent of citizens responding to a biennial public opinion survey who report satisfaction with how their stormwater fees are being used.

Strategy 1: Implement adaptive management to optimize services and maintain regulatory compliance within financial constraints.

Objectives: Pollutants removed from the stormwater system – tons and cubic yards of debris removed.

No regulatory violations or notices of noncompliance to City.

Work Activities:

- Participate with other stormwater management agencies in efforts to collaboratively address water quality and stormwater issues.
- Assess BMPs and related work programs for effectiveness and compliance with regulations.
- Complete stormwater basin planning and stormwater quality development standards adoption.
- Monitor and complete studies of stormwater quality to determine regulatory applicability and program effectiveness.
- Seek and incorporate public involvement in adaptive management activities.
- Evaluate and report on adaptive management actions in annual NPDES permit reports.

Strategy 2: Maintain flood protection and effective drainage services.

Objectives: Decrease the number of reported flooding incidents by 10%.

Maintain satisfactory compliance with Corps inspections of the Amazon Waterway.

Work Activities:

- Plan and construct stormwater infrastructure and rehabilitation projects to solve flooding problems.
- Continue to evaluate and refine proactive preventive maintenance activities.
- Continue program of periodic inspections of high potential flooding areas.
- Continue leaf pick-up and recycling program

Strategy 3: Implement financial management goals and policies for stormwater services.

Objective: Develop and implement a strategy for fully funding a target two-month operating reserve within five years.

Work Activities:

- Annually update the Six-Year Fund Forecast to project long-term operating costs and capital program needs and to serve as a basis for establishing and recommending stormwater user rates and capital program funding levels.
- Establish a fund management policy for regular (annual to biannual) user rate increases to maintain service levels and fund long-term capital programs.

Stormwater System Map

